

### III. Analysis of the Existing Highway System

In analyzing an existing highway system for travel, there are four major factors of many which must be considered. They are (1) population, (2) employment, (3) land use, and (4) traffic. These factors control the type of thoroughfare system an area needs. For instance the more population you have, the more traffic on the highway; or the more desirable the land (residential, commercial, or industrial) the more newcomers will be attracted to the area, thus adding more traffic. These factors dictate what the area needs. The increase in traffic due to these factors influence the future highway system. The most important part in a study is making growth forecasts from existing conditions and converting them into future travel. Setting the groundwork for the future year analysis is very important in model simulation.

#### Population

Travel is directly related to population. The volume of traffic on a section of roadway is a function of the size and location of the population it serves. An analysis of the population is one of the first steps in planning a highway system. Since 1940 Farmville has encountered increases and decreases in population. However on a whole, it has maintained approximately one percent annual growth rate. Decreasing agricultural activity with increasing commercial and industrial activity in and around Farmville are factors which contribute to these fluctuations. (See Table 1).

Population projections were derived from census data using several methods. Census figures were extrapolated to year 2020 using 1987 data provided by the office of State Budget and Management. Other methods include the growth rate formula, the graphical method, and an estimation of dwelling units with persons per dwelling unit ratio.

**TABLE 1 - POPULATION PROJECTIONS**

YEAR	NORTH CAROLINA	PITT COUNTY	FARMVILLE TOWNSHIP	FARMVILLE	URBAN AREA
1940	3,571,623	61,244	6,449	2,980	----
1950	4,061,929	63,789	6,169	2,942	----
1960	4,556,155	69,942	6,435	3,997	----
1970	5,084,411	73,900	6,522	4,424	----
1980	5,880,415	90,146	6,602	4,707	6600
1990	6,628,637	107,924	6,521	4,392	7300
2000	<b>7,260,748</b>	<b>114,212</b>	6,719	4,852	8350
2010	<b>7,775,979</b>	<b>122,871</b>	6,924	5,359	8750
2015	8,375,423	135,020	7,028	5,632	8966
2020	8,776,538	141,206	7,134	5,920	9166

NOTE: Highlighted figures are estimates from the Office of State Budget and Management, 1987.